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Top Secret

[redacted]

[redacted] 25X1

BASIC
IMAGERY
INTERPRETATION
REPORT

NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER

BALAKLAVA MISSILE TEST CENTER MAY 1977--MAY 1978 (S)

[redacted] 25X1

MISSILE RANGES: NAVAL LAUNCHED FACILITIES
USSR
SEPTEMBER 1978

[redacted]

Top Secret

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RCA-17/0005/78

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INSTALLATION OR ACTIVITY NAME					COUNTRY
Balaklava Missile Test Center, May 1977--May 1978					UR
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	44-30-14N 033-31-22E	[redacted]			25X1

MAP REFERENCE

2d RTS. USATC, Series 200, Sheet 0250-25, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
[redacted]	NA 25X1

ABSTRACT

1. (TSR) This report describes activity at the Balaklava Missile Test Center (MTC), USSR, from May 1977 to May 1978 and updates NPIC report [redacted] 25X1

2. (TSR) Significant events that occurred during the reporting period were preparations for popup testing of a new submarine-launched ballistic missile (SLBM), including the arrival of a new popup barge at the Balaklava Submarine Base and Ship Repair Yard [redacted] evidence of land-based testing of a STYX missile variant; and change in the position and number of bouys in the popup test area. 25X1

3. (U) This report includes four photographs and a location map.

BASIC DESCRIPTION

4. (TSR) The Balaklava MTC (Figure 1) consists of a submerged launch test facility; a test equipment support area, Balaklava Submarine Base and Ship Repair Yard; a former SAMLET research and development launch area, Balaklava Coastal Defense Test Site CM Tactical Short Range [redacted] a missile handling area; a liquid propellant service area; a missile storage area; a base support area; and instrumentation sites 1, 2, and 3. This report updates a previous NPIC report.[1] 25X1

New SLBM System

5. (TSR) A photographic study of missile-related equipment provided evidence that a new SLBM is probably being popup tested at Balaklava MTC. Analysis also indicates that the missile will be no longer than [redacted] with a diameter of approximately [redacted] meters. 25X1

6. (TSR) In May 1977 a new probable SLBM missile transporter was seen in the missile handling area (a second transporter was seen at the facility in October 1977). The transporter (Figures 2 and 3), which is pulled by a MAZ-537 prime mover, is [redacted] 25X1

[redacted] 25X1

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long and is comparable in length to the SS-N-18 transporter. However, analysis of the wheelbase and fender location and the absence of an auxiliary box behind the prime mover indicated that the new transporter does not have the same chassis as the SS-N-18 transporter, but it is on the style of a flatbed trailer.[2] The trailer portion was [redacted] 25X1
long and when seen on imagery of [redacted] it had handling cradles with an 25X1
inner diameter of [redacted] 25X1

7. (TSR) Accompanying the transporter was a flatbed truck with an unidentified canvas-covered object (Figure 2). The object was approximately [redacted] and 25X1
could have been a launch-assist device for the missile to be tested from the popup barge.

8. (TSR) Probable missile handling rings were seen near the new transporters on several occasions and on a dock at the submarine base where the popup barges are moored. The rings ranged in size from [redacted] in outside diameter and 25X1
when measurable had inside diameters of [redacted] the same size as the inner diameter 25X1
of the cradles on the transporter.

9. (TSR) On [redacted] a new SLBM popup barge (Figure 4), built at Nikola- 25X1
yev Shipyard Nosenko 444 [redacted] arrived at the submarine base. The barge 25X1
was probably constructed to simulate a section of the missile bay of a fleet ballistic missile submarine, nuclear propelled (SSBN). It had two outer doors similar in shape

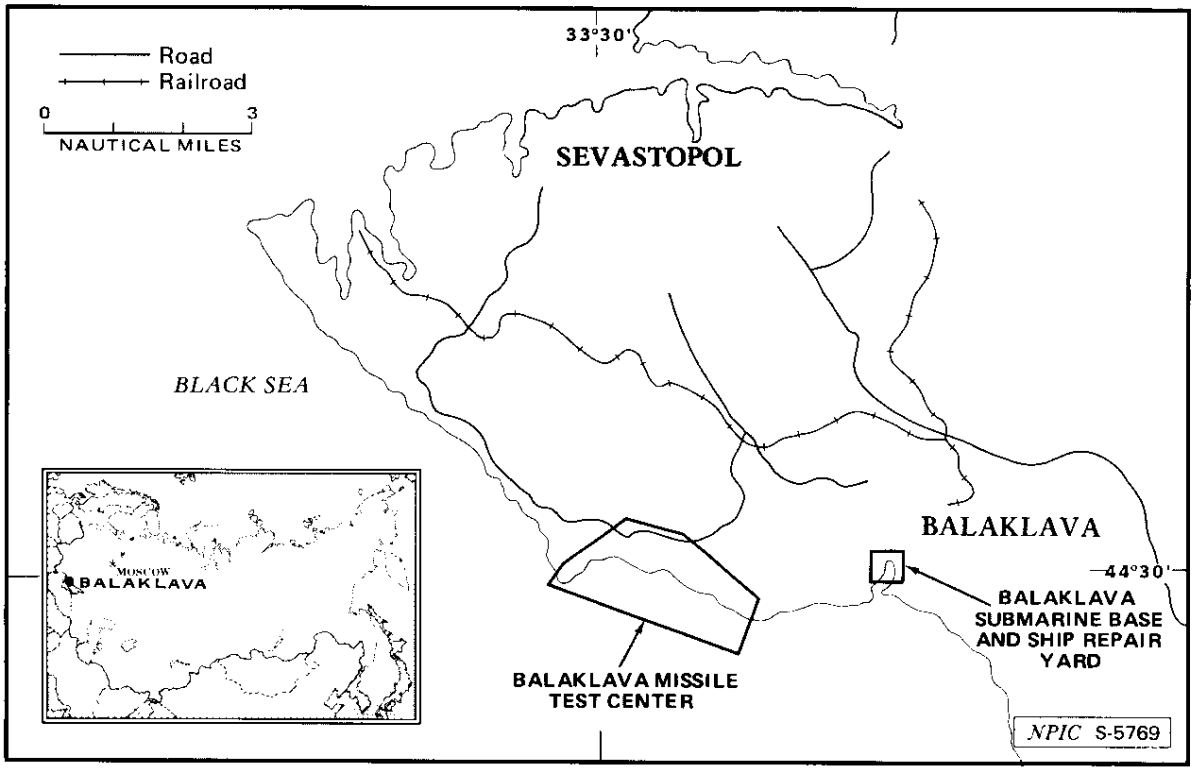

FIGURE 1. LOCATION OF BALAKLAVA MISSILE TEST CENTER, USSR

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and location to those seen on the missile bay of the Delta-class SSBN. The doors were at least [redacted] and possibly [redacted] long and [redacted] wide, [redacted] longer and [redacted] wider than the outer doors of the Delta-class SSBN. When two possible frames for the missile tube doors were seen at Nikolayev, both had [redacted] diameter inner framing support sections. 25X1 25X1 25X1

10. (TSR) Considering the length of the trailer chassis, the dimensions of the cradles on the trailer, the diameter of the missile handling rings, and the size of the missile tube doors of the new popup barge, it is reasonable to assume that the new SLBM will have a diameter of [redacted] and a maximum length of [redacted] 25X1

Possible Firing Platform for STYX Variant

[redacted] 25X1

[redacted] Analysis of imagery over these periods revealed a vehicle that could function as a possible firing platform for the system. The vehicle, a possible canister transporter/launcher (Figure 5), was seen on imagery of [redacted] in the missile handling area. It had an overall length of [redacted] with a [redacted] canister/launch tube. A vehicle of similar dimensions was also seen at that position on [redacted] 25X1 25X1 25X1 25X1

[redacted] 25X1

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12. (TSR) The possible canister transporter/launcher is similar in appearance to the canister-type transporter/launchers seen at Kapustin Yar Cruise Missile Test Complex D [redacted], Marciena Missile Support Facility [redacted], and Pruzhany Army Barracks [redacted]. The vehicles at these facilities were reported as possible remote-piloted vehicle/drone related.[6] The vehicle at Balaklava differs from the others in that it is 1 meter shorter and lacks end caps, but the canister portion is dimensionally compatible with the STYX missile.[5] 25X1 25X1

13. (TSR) The site previously used in the testing of land-based cruise missile systems at Balaklava is apparently inactive since it is overgrown with vegetation, and no missile-related activity has been seen there since before the STYX missile firings began.[5]

Popup Test Area

14. (TSR) In July 1977 the number of stabilization buoys at the Balaklava MTC offshore popup area increased from four to eight, signifying that two popup test programs were possibly being planned. (The last time eight buoys were seen in the test area was between 1968 and 1971, when the SS-N-8 and another missile, possibly the SS-N-9, were believed to be undergoing simultaneous popup testing.) Four of the eight buoys were probably related to the new SLBM popup barge (platform 8) which arrived at the submarine base in August 1977. The other four buoys are probably related to either the cruise missile barge or the twin-tube popup barge.[7]

Changes Within the Missile Storage Area

15. (TSR) The only change within the area has been the reduction of SS-N-2 crates from 20 on [redacted] 25X1

Construction Activity

16. (TSR) The most significant physical change to the facility has been the increased security around the missile handling area and instrumentation site 2. Both areas are now double-fence secured.

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REFERENCES

IMAGERY

(TSR) All interpretable KEYHOLE imagery from October 1976 [redacted] 25X1
[redacted] was used in the preparation of this report. 25X1

MAPS OR CHARTS

2nd RTS. US Air Target Chart, Series 200, Sheet 0250-25, scale 1:200,000 (UNCLASSIFIED)

DOCUMENTS

1. NPIC. [redacted] RCA-17/0002/77, *Balaklava Missile Test Center, January 1976--May 1977,* Jul 77 (TOP SECRET [redacted]) 25X1 25X1
2. NPIC. [redacted] SR-054/77, *Possible New Missile Transporter at Balaklava Missile Test Center, USSR (S),* Aug 77 (TOP SECRET [redacted]) 25X1 25X1
3. NPIC. [redacted] SR-007/78, *Estimated Dimensions of New Soviet SLBM (TSR),* Jan 78 (TOP SECRET [redacted]) 25X1 25X1
4. NSA. K/00/8852/77, TAG FAER RU, *SS-N-2C/STYX Missile Displays Sea-Skimming Cruise Capability,* Aug 77 (TOP SECRET [redacted]) 25X1
5. NPIC. [redacted] SR-037/78, *Possible Firing Platform for the SS-N-2C (STYX Variant) Missile in the USSR (TSRZ),* Apr 78 (TOP SECRET [redacted]) 25X1 25X1
6. NPIC. [redacted] SR-050/77, *Deployment of a Possible New RPV/Drone in USSR (S),* Jul 77 (TOP SECRET [redacted]) 25X1 25X1
7. NPIC. [redacted] SR-045/78, *Popup Test Activity at Balaklava Missile Test Center, USSR (TSR),* Jun 78 (TOP SECRET [redacted]) 25X1 25X1

REQUIREMENT

COMIREX R01
Project 280003DR

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] 25X1
Soviet Strategic Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1

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List of Conversion Factors by Classification

UNITS OF LENGTH

IF YOU HAVE	*MULTIPLY BY*	*TO OBTAIN*
MILLIMETERS	0.0394	INCHES
CENTIMETERS	0.3937	INCHES
INCHES	25.4000	MILLIMETERS
INCHES	2.5400	CENTIMETERS
FEET	0.3048	METERS
FEET	0.0003	KILOMETERS
YARDS	0.9144	METERS
METERS	3.2808	FEET
METERS	0.0005	MILES(NAUTICAL)
METERS	1.0936	YARDS
KILOMETERS	3280.8400	FEET
KILOMETERS	0.6214	MILES(STATUTE)
KILOMETERS	0.5400	MILES(NAUTICAL)
MILES(STATUTE)	1.6093	KILOMETERS
MILES(NAUTICAL)	6076.1154	FEET
MILES(NAUTICAL)	1.8520	KILOMETERS
MILES(NAUTICAL)	1852.0000	METERS

UNITS OF AREA

IF YOU HAVE	*MULTIPLY BY*	*TO OBTAIN*
SQUARE CENTIMETERS	0.1550	SQUARE INCHES
SQUARE INCHES	6.4516	SQUARE CENTIMETERS
SQUARE FEET	0.0929	SQUARE METERS
SQUARE YARDS	0.8361	SQUARE METERS
SQUARE METERS	10.7639	SQUARE FEET
SQUARE METERS	1.1960	SQUARE YARDS
SQUARE METERS	1.0000	CENTARES
SQUARE METERS	0.0002	ACRES
SQUARE METERS	0.0001	HECTARES
ACRES	4046.8564	SQUARE METERS
ACRES	0.4047	HECTARES
HECTARES	10000.0000	SQUARE METERS
HECTARES	2.4711	ACRES

UNITS OF MASS

IF YOU HAVE	*MULTIPLY BY*	*TO OBTAIN*
KILOGRAMS	2.2046	POUNDS(AVOIR.)
POUNDS(AVOIR.)	0.4536	KILOGRAMS
SHORT TONS	0.9072	METRIC TONS
METRIC TONS	1.1023	SHORT TONS
METRIC TONS	0.9842	LONG TONS
LONG TONS	1.0160	METRIC TONS

UNITS OF VOLUME

IF YOU HAVE	*MULTIPLY BY*	*TO OBTAIN*
LITERS	0.2642	GALLONS
LITERS	0.0063	BARRELS(POL)
LITERS	0.0010	CUBIC METERS
GALLONS	3.7854	LITERS
GALLONS	0.1337	CUBIC FEET
GALLONS	0.0238	BARRELS(POL)
GALLONS	0.0038	CUBIC METERS
BUSHELS	0.0352	CUBIC METERS
CUBIC FEET	7.4805	GALLONS
CUBIC FEET	0.1781	BARRELS(POL)
CUBIC FEET	0.0283	CUBIC METERS
CUBIC YARDS	0.7646	CUBIC METERS
BARRELS(POL)	158.9873	LITERS
BARRELS(POL)	42.0000	GALLONS
BARRELS(POL)	5.6146	CUBIC FEET
BARRELS(POL)	0.1590	CUBIC METERS
CUBIC METERS	1000.0000	LITERS
CUBIC METERS	264.1721	GALLONS
CUBIC METERS	35.3147	CUBIC FEET
CUBIC METERS	28.3776	BUSHELS
CUBIC METERS	6.2898	BARRELS(POL)
CUBIC METERS	1.3080	CUBIC YARDS

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